

RICTOR Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7259c**Specification**

RICTOR Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q6R327
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	192218
Antigen Region	805-835

RICTOR Antibody (Center) - Additional Information**Gene ID** 253260**Other Names**Rapamycin-insensitive companion of mTOR, AVO3 homolog, hAVO3, RICTOR
{ECO:0000312|EMBL:EAW559801}**Target/Specificity**

This RICTOR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 805-835 amino acids from the Central region of human RICTOR.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RICTOR Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

RICTOR Antibody (Center) - Protein Information**Name** RICTOR {ECO:0000303|PubMed:15268862, ECO:0000312|HGNC:HGNC:28611}**Function** Component of the mechanistic target of rapamycin complex 2 (mTORC2), which

transduces signals from growth factors to pathways involved in proliferation, cytoskeletal organization, lipogenesis and anabolic output (PubMed:[15268862](#), PubMed:[15718470](#), PubMed:[19720745](#), PubMed:[19995915](#), PubMed:[21343617](#), PubMed:[33158864](#), PubMed:[35904232](#), PubMed:[35926713](#)). In response to growth factors, mTORC2 phosphorylates and activates AGC protein kinase family members, including AKT (AKT1, AKT2 and AKT3), PKC (PRKCA, PRKCB and PRKCE) and SGK1 (PubMed:[19720745](#), PubMed:[19935711](#), PubMed:[19995915](#)). In contrast to mTORC1, mTORC2 is nutrient-insensitive (PubMed:[15467718](#), PubMed:[21343617](#)). Within the mTORC2 complex, RICTOR probably acts as a molecular adapter (PubMed:[21343617](#), PubMed:[33158864](#), PubMed:[35926713](#)). RICTOR is responsible for the FKBP12-rapamycin-insensitivity of mTORC2 (PubMed:[33158864](#)). mTORC2 plays a critical role in AKT1 activation by mediating phosphorylation of different sites depending on the context, such as 'Thr-450', 'Ser-473', 'Ser-477' or 'Thr-479', facilitating the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1/PDK1 which is a prerequisite for full activation (PubMed:[15718470](#), PubMed:[19720745](#), PubMed:[19935711](#), PubMed:[35926713](#)). mTORC2 catalyzes the phosphorylation of SGK1 at 'Ser-422' and of PRKCA on 'Ser-657' (By similarity). The mTORC2 complex also phosphorylates various proteins involved in insulin signaling, such as FBXW8 and IGF2BP1 (By similarity). mTORC2 acts upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors (PubMed:[15467718](#)). mTORC2 promotes the serum-induced formation of stress-fibers or F-actin (PubMed:[15467718](#)).

Cellular Location

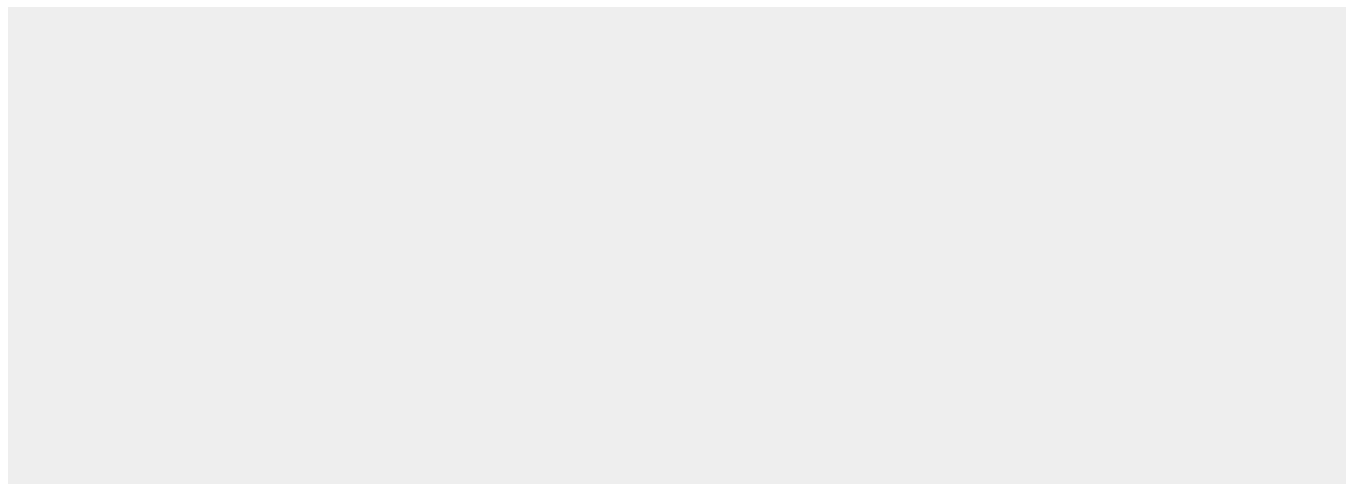
Cell membrane. Endoplasmic reticulum membrane. Lysosome membrane. Note=The mTORC2 complex localizes to membranes: mTORC2 is active at the plasma membrane, endoplasmic reticulum membrane and lysosomes (PubMed:21867682). In lysosomal membrane, mTORC2 is sensitive to lysosomal positioning in the cell (PubMed:31130364).

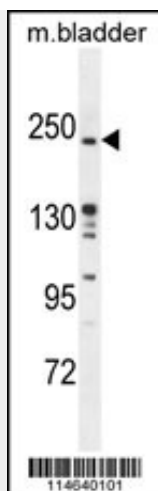
RICTOR Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RICTOR Antibody (Center) - Images





RICTOR Antibody (Center) (Cat.#AP7259c) western blot analysis in mouse bladder tissue lysates (35ug/lane). This demonstrates the RICTOR antibody detected the RICTOR protein (arrow).

RICTOR Antibody (Center) - Background

RICTOR and MTOR (FRAP1) are components of a protein complex that integrates nutrient- and growth factor-derived signals to regulate cell growth.

RICTOR Antibody (Center) - References

Pearce, L.R., *Biochem. J.* 405 (3), 513-522 (2007)
Yang, Q., *Genes Dev.* 20 (20), 2820-2832 (2006)
Jacinto, E., *Cell* 127 (1), 125-137 (2006)